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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,967	06/27/2003	B. Raghava Reddy	COS-929	7394

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EXAMINER

MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,967

Applicant(s)

REDDY ET AL.

Examiner

Jeffrey C. Mullis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9, 11-16, 20-25 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9, 11-16, 20-25 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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All remaining rejections/objections follow.

The plural "additives" of claim 12 lack antecedent basis in claim 30. Correction is required.

Claims 2-9, 11, 12, 16, 20-26 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "polymerized alpha olefin of at least carbon atoms" is unclear since this phrase can be interpreted such that the "at least 10 carbon atoms" pertains to the alpha olefin or to the "polymerized" material. Given that materials with a few units are generally not considered polymers the most reasonable interpretation would be that that the phrase pertains to the olefin itself but applicants remarks during the interview of 5-4-05 indicate that applicants view there "10 carbon atom limitation" to pertain to the polymer, not the olefin monomer. Furthermore, the term "carbon length" at page 14, paragraph 37 is not art recognized.

The term "liquid synthetic hydrocarbon" is unclear since a material may be a liquid at one temperature but not at another and the temperature to which this limitation pertains is not stated in at least claim 7.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. ' 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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The following is a quotation of 35 U.S.C. ' 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-9, 11, 12, 16, 20-25 and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Reddy et al. (U.S. 5,861,455).

Reddy et al. disclose the production of high impact polystyrene by polymerizing rubber in the presence of a polyisobutylene lubricant (PIB Amoco H-100, a copolymer of isobutene and butane) and mineral oil which is said to produce a composition with high environmental stress crack resistance. Note the Abstract as well as column 5 line 1 - column 6 line 8 describing the Examples. Note use of chain transfer agent at the paragraph bridging columns 3 and 4.

While applicants' claim domestic priority to U.S. applications 09/379,813, 08/828,206 and 08/547,824, none of these applications support the full breadth of the claims for at least the reasons that the parent applications recite nothing about use of polymerized alphaolefins of at least 10 carbons or broadly disclose the use of polyolefin copolymers or use of 0.1-6 weight percent of ESCR enhancing additive. Therefore the effective filing date of the instant claims is the actual filing date of the instant case, namely 6-27-03.

Claims 2-9, 11, 13, 30 and 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dempsey et al. (U.S. 3,506,740).

Dempsey et al. disclose a composition in which styrene is polymerized in the presence of a rubber. Note the Example starting in column 3 in which styrene is polymerized in the presence of polybutadiene and then compounded with "Indopol Polybutene H-100", which applicants appear to indicate in their own specification can be used as the ESCR enhancing component. Note that the Examples may also add mineral oil to these compositions and that Amopol Polypropylene C-175 may be used in place of the polybutene. Note that this material has a molecular weight of 8-1400 at column 2 lines 45-64. While there is nothing disclosed about ESCR explicitly, it is assumed that the ESCR enhancing effect would result from addition of the polybutene and polypropylene given that applicants' and patentees' materials as set out in applicants' and patentees' specification from the Examples are the same.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP ' 2112-2112.02.

Claims 2, 4, 7, 11-15, 20, 20-24, 30 and 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yoshida et al. (US 4,219,466).

Patentees disclose a composition containing "high impact polystyrene" Styron 492 known to contain 6.5% rubber and an amorphous alpha olefin copolymer. Note the Examples at the paragraph bridging columns 4 and 5. As all components recited by the claims are present in patentees examples, applicants' and patentees' characteristics are assumed to be inherently the same.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claims 2-9, 11-12, 20-24 and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Uzelmeier et al. (US 4,235,760).

Patentees disclose a composition containing HIPS formed by mass polymerization of styrene in the presence of 8% rubber and containing, atactic polypropylene or "H-1500"

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polyisobutylene. Note runs 3 and 5 in Table 1. As applicants materials and patentees are identical, identical characteristics are assumed inherent.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993).

Keskkula et al, cited of interest discloses that STYRON 492 contains 6.5% polybutadiene rubber at column 10, lines 30-35.
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Holden et al. (US 4,188,432), cited of interest discloses an ESCR resistant HIPS (abstract) and that "polystyrene is employed as an impact improved product, made as a graft polymer of styrene and an elastomer" (column 1, lines 12-17).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2-9, 11-16, 20-25 and 30-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 6,613,837. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the application encompass those of the patent which discloses use of an ESCR enhancing additive including polybutene recited by both the application and patent claims and use of applicants' rubbers and monovinyl aromatic monomer as well as a chain transfer agent.

Claims 2-9, 11-16, 20-25 and 30-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,861,455. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the application encompass those of the patent given that the patent claims recite use of an ESCR enhancing additive which is polybutene in a high impact rubber modified monovinyl aromatic polymeric composition.

Claims 2-9, 11-16, 20-25 and 30-32 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 32-62 of copending application Serial No. 10/454,135. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application encompass those of the copending application '135 given that the copending application utilizes polybutene as an ESCR enhancing additive and a rubber modified polyvinyl aromatic composition.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed 5-24-05 have been fully considered but they are not persuasive. As discussed in the interview it appeared at the time of the previous rejection that the "10 carbons" of the claims referred too the length of the olefin monomer length, not the polymer chain length. The molecular weights of the olefinic oligomers of the prior art are such that the number of carbon atoms in the polymer chain

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of course far higher than 10. Applicants amendment apparently reciting the number of carbons in the polymer of their additive has not narrowed the scope of the claims given that the polymers/oligomers of the prior art have more than 10 carbons.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Mullis whose telephone number is (571)

272-1075. The examiner can normally be reached on Monday-Friday from 9:30 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (571) 272-1078. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-0994.

J. Mullis:cdc
July 27, 2005

Jeffrey Mullis
Primary Examiner
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A handwritten signature in black ink, appearing to be 'JM', located below the printed name and title of the examiner.